Here are all the days GMD launched ozonesondes during the summer of 2008:
bu183_2008_08_27_19.1100
bu180_2008_08_21_19.1100
bu177_2008_08_14_20.1100
bu176_2008_08_06_19.1100
bu173_2008_07_30_18.1100
bu172_2008_07_24_17.1100
bu169_2008_07_16_20.1100
bu168_2008_07_11_16.1100
bu167_2008_07_10_19.1100
bu166_2008_07_09_19.1100
bu165_2008_07_08_19.1100
bu164_2008_07_07_19.1100
bu163_2008_07_05_18.1100
bu162_2008_07_04_19.1100
bu161_2008_07_03_18.1100
bu160_2008_07_02_18.1100
bu159_2008_07_01_19.1100
bu158_2008_06_30_19.1100
bu157_2008_06_28_17.1100
bu156_2008_06_27_19.1100
bu153_2008_06_18_19.1100
bu152_2008_06_10_16.1100
bu149_2008_06_04_20.1100

-A

On Mar 14, 2014, at 15:05, Tonnesen, Gail wrote:

> Chris,
>
> I placed a tar file on the ftp site with gifs of camx results for different layers, including O3, PM2.5, O3/PM2.5 and POx.
>
> The O3 plots are for layers 1, 15, 19 and 21.
>
> The PM2.5 plots are only for July 30-31st.
>
> The POx plots are for layers 1 and 15, and they show areas of active photochemistry. You can see POx from some of the power plants, Craig and Deseret. The plume from Craig is transported to Jackson County. The layer 21 O3 plots show a layer of high ozone concentrations around 6000 7000 m AGL, and it is possible the model is also transporting this O3 into the PBL. Do you know if there were any ozonesondes during July 30-31?
>
> Thanks,
> Gail
> 303-312-6113

From: Christoph J. Senff [mailto:christoph.senff@noaa.gov]
Sent: Thursday, March 13, 2014 1:07 PM
To: Tonnesen, Gail
Subject: Re: 2008 TOPAZ data

Got the new files as well.

I'll be traveling the next couple of weeks (work & play), so I am not sure when I will have a chance to start comparing CAMx results and TOPAZ data. I may do some of that on the road, but certainly by the time I get back in April, I'll look into it.

Cheers,
Chris

Christoph Senff
Research Scientist
NOAA/ESRL/CSD & CU/CIRES
ph: 303-497-6283
fax: 303-497-5318

On Mar 13, 2014, at 8:01 AM, Tonnesen, Gail <Tonnesen.Gail@epa.gov> wrote:

I also put the file for 7/27 on the ftp site, and hope to have 30-31st later today.

From: Christoph J. Senff [mailto:christoph.senff@noaa.gov]
Sent: Wednesday, March 12, 2014 10:45 PM
To: Tonnesen, Gail
Subject: Re: 2008 TOPAZ data

Gail,

Got the sample file. Thanks.

I'll let you know if I run into roadblocks trying to read the file.

Cheers,
Chris

Christoph Senff
Research Scientist
NOAA/ESRL/CSD & CU/CIRES
ph: 303-497-6283
fax: 303-497-5318

On Mar 12, 2014, at 10:08 AM, Tonnesen, Gail <Tonnesen.Gail@epa.gov> wrote:

Chris,

I put a sample 3-d CAMx O3 file for the July 17 for the 4-km grid on the scienceftp.epa.gov ftp site.

You can access the file with the user id below. Let me know if you have any problems reading the file.

Thanks,
Gail
303-312-6113

Collaborator's login id:	csenff
Collaborator's password:	3ZffhpyJ
Project Name:	frappe
Collaborator's last name:	Senff
Collaborator's first name:	Chris
Collaborator's organization:	NOAA
Lifetime of the Account:	4 weeks

From: Tonnesen, Gail
Sent: Wednesday, March 12, 2014 9:10 AM
To: 'Christoph J. Senff'
Subject: RE: 2008 TOPAZ data

Hi Chris,

I hope to send you a 3-d CAMx ozone file later today. I need to write some code to convert the CAMx binary file to the netCDF format.

Thanks,
Gail
303-312-6113

From: Christoph J. Senff [mailto:christoph.senff@noaa.gov]

Sent: Monday, March 10, 2014 10:23 AM
To: Tonnesen, Gail
Subject: Re: 2008 TOPAZ data

Hi Gail,

We have the ability to extract curtain data from NetCDF files, but don't have any existing code. It would be great if you could send me a sample file of CAMx 3-d O3.

Thanks,
Chris

Christoph Senff
Research Scientist
NOAA/ESRL/CSD & CU/CIRES
ph: 303-497-6283
fax: 303-497-5318

On Mar 10, 2014, at 8:51 AM, Tonnesen, Gail <Tonnesen.Gail@epa.gov> wrote:

Chris,

We did not save 3-d model outputs for this period, so I will need to rerun the model for the last two weeks of July. Can you extract curtain plots from a netCDF file? If you have code to do this, I can try to adapt it for our netCDF file, or I can send you a sample file of the CAMx 3-d ozone.

Thanks,
Gail
303-312-6113

From: Christoph J. Senff [mailto:christoph.senff@noaa.gov]
Sent: Friday, March 07, 2014 12:34 PM
To: Tonnesen, Gail
Cc: Andy Langford; Reddy - CDPHE, Patrick
Subject: Re: 2008 TOPAZ data

Gail,

We have TOPAZ data for 7/24 (short flight & some laser problems), 7/27, 7/30, and 7/31 (double header: afternoon & evening flights).

We measure ozone and aerosol backscatter profiles, but no other additional species.

Chris

Christoph Senff
Research Scientist
NOAA/ESRL/CSD & CU/CIRES
ph: 303-497-6283
fax: 303-497-5318

On Mar 7, 2014, at 8:53 AM, Tonnesen, Gail <Tonnesen.Gail@epa.gov> wrote:

Chris,

The TOPAZ-CAMx comparison would be very helpful to us for evaluating CAMx. I will need to rerun the last two weeks of July, as I did not save the 3-d outputs for that period. For which days do you have TOPAZ data? And do you have any species other than O3 and PM2.5?

Thanks,
Gail
303-312-6113

From: Christoph J. Senff [mailto:christoph.senff@noaa.gov]
Sent: Thursday, March 06, 2014 4:01 PM
To: Tonnesen, Gail
Cc: Andy Langford; Reddy - CDPHE, Patrick
Subject: Re: 2008 TOPAZ data

Gail,

Thanks for sending the model output plots. This is great stuff!

30 July 2008 is the day when we saw the Denver plume out east in our lidar data (I could not think of the date durnig my presentation today). We observed the plume close to where the model has it (around 22:00 UTC vs 23:00 UTC in your model output). We saw peak values of 90-95 ppbv.

Yes, I am interested in extracting the curtain plots from the CAMx 3-d files. I am planning to finally write up our findings from FRAQS 2008 (probably later this spring). Perhaps we could include TOPAZ-CAMx comparisons?

Chris

Christoph Senff
Research Scientist
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ph: 303-497-6283
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On Mar 6, 2014, at 3:13 PM, Tonnesen, Gail <Tonnesen.Gail@epa.gov> wrote:

Chris, Andy, Pat,

I attached 1-hr ozone plots at 4 PM local time on July 27 and 31, 2008. CAMx seems to have the flow correct to the SW on July 27 and to the NW on July 31, although measured O3 peaks earlier than the model on the afternoon at RMNP on the 31st. July 30th is one of the days that has the O3 plume to the east of Denver, also attached. Are you interested in extracting the curtain plots from the model data to compare with the TOPAZ data? The CAMx 3-d files are in netCDF format.

Thanks,
Gail
303-312-6113
<camx.O3.2008209.4km.023.gif><camx.O3.2008213.4km.023.gif><camx.O3.2008212.4km.023.gif>

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